



**PENSACOURT HEALTH, RACQUET AND FITNESS CLUB**  
**Pensacourt, Florida**  
**CASE STUDY**



**LOCATION:** Pensacola, Florida USA

**SYSTEM CONFIGURATION:** Solar Pool Heater - 42 Vortex™ Collectors  
 Solar Water Heater- 5 ProgressivTube® (PT-50) ICS Units

<b>Combined System Performance:</b>	<b>1.9 M Btu/Day [603 KW-Hr/Day]</b>
<b>Pool Size:</b>	<b>25,500 Gallons</b>
<b>Pool Heating Requirements:</b>	<b>Continuous 87 degrees F</b>
<b>Solar Provision of Daily Winter Load:</b>	<b>80%</b>

**Savings and Return on Investment**

<b>Energy costs without Solar:</b>	<b>\$1250/month (natural gas)</b>	<b>Annual Energy Savings:</b>	<b>\$13,500</b>
<b>Energy costs with Solar:</b>	<b>\$250/month</b>	<b>Payback Period:</b>	<b>5 years</b>
<b>SWH System Cost:</b>	<b>\$12,500</b>		

**Project Background**

Serving hundreds of people's athletic activities every day, health and fitness clubs require considerable and ongoing (some 24x7) demand for hot water for members' cleaning/showering as well as pool heating for swim work-outs and aquatic exercise.

The Pensacourt Health Club serves over 400 fitness members per day, where members take advantage of the club's exercise equipment and instructor led classes. Facilities include a year-round use 25,500 gallon pool that is bubble-domed in the winter.

Before the solar installation, the showers and pool were heated with gas. Why did the fitness club owner invest in solar? Reducing monthly energy expense to improve club operation profitability was a core goal. Solar pool heating in particular allowed the health club to retain swim-oriented members over additional months, as solar extends the useable pool season.